Statement by
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Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to come before you today to discuss the state of energy and the bioeconomy in rural America, and the United States Department of Agriculture Rural Development's role in supporting both. Energy production has long been a backbone of rural jobs, economies, and livelihoods. It is deeply rooted in the social and fiscal fabrics of rural communities and has contributed significantly to American prosperity as a whole.

But, as the future of our human health and economic output increasingly require a robust response to climate change, market demands are shifting from fossil fuels to cleaner sources of energy. The burning of fossil fuels is the primary cause of climate change,[1] and consumers are looking for cleaner options to power their businesses, homes, and schools—with forty percent of consumers preferring renewable energy in 2019 compared to twenty-five percent in 2018.[2] By 2026, global renewable energy capacity is set to rise more than sixty percent above 2020 levels, accounting for nearly ninety-five percent of total global power capacity increases.[3]

Rural communities are pivoting energy production models to respond to these market shifts, but not without challenges. Fossil fuel assets are deep, and continued financing and operation of historic investments by energy producers contribute toward general community reluctance to shift to new sources of energy. I believe this shift is not only possible but will be catalyzed by ensuring that rural America is at the table. Rural communities are resilient and incredibly innovative. Their expertise, skillsets, and decades of experience in energy industries will be invaluable in the transition to clean energy.

Rural Development is poised to be a dependable partner in this transition. Rural Development does not regulate U.S. energy entities but rather can provide incentives and expertise by way of deep ties in rural communities, and long, trusted relationships with rural electric cooperatives and producers. The transition to clean energy can be beneficial for utilities, customers, producers and rural communities alike. It can contribute to energy grid security, the fight against climate change and extreme weather in rural areas and provide savings for customers and producers. I

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[1] https://ugc.berkeley.edu/background-content/burning-of-fossil-fuels/
[2] https://www.businesswire.com/news/home/20190422005350/en/Consumer-Demand-for-Clean-Energy-Significantly-Increases
[3] https://www.iea.org/news/renewable-electricity-growth-is-accelerating-faster-than-ever-worldwide-supporting-the-emergence-of-the-new-global-energy-economy

look forward to working with Congress to support clean energy and the bioeconomy in rural America.

Energy Security

Consumers across the United States depend on uninterrupted and affordable availability of energy sources every day. This means energy systems that are secure against cyberattacks, resilient enough to withstand extreme weather, and insulated against global conflict. Yet, just as we have seen across the global supply chain, the United States' energy system is rigid, fragile, and susceptible to disruption that has an immediate and sharp impact on families' budgets.

Putin's war on Ukraine is removing millions of barrels of oil from the global supply, one of many factors driving the highest price that consumers have ever paid at the pump.[4] Economists expect retail fuels prices to rise to $4.50 per gallon by April[5]—underscoring that the energy supply chain is consolidated, inflexible, and highly susceptible to shocks that have a direct impact on consumers.

Cyber security risks are on the rise in the energy sector, with bad actors increasingly targeting U.S. energy assets. In 2021, a Russian ransomware attack on the Colonial Pipeline caused the company to shut down the pipeline for the first time in history. The shutdown of the pipeline, which provides forty-five percent of fuel across the East Coast, had immediate, far-reaching impacts. In Washington, D.C., eighty-seven percent of gas stations went dry.[6]

Millions of Americans feel the effects of climate change each year when their power goes out, like in Texas, when uncharacteristically severe winter storms swept the state in early 2021. Almost seventy percent of customers served by the Texas state power grid experienced an outage.[7] Those who lost power were without electricity for an average of forty-two hours in subzero temperatures. As these power outages demonstrated, our aging electric grid needs urgent modernization, including more smart grid technology and more transmission lines.

Rural Development is taking steps to address energy security internally but is also working to partner across the energy sector to address resiliency broadly. USDA and the Department of Energy (DOE) have a memorandum of understanding between the two Departments as required by the 2018 Farm Bill, which has spurred enhanced coordination and cooperation on energy and electric issues. USDA and DOE have engaged in productive consultations on cybersecurity and continue to work to leverage each's funding to support grid reliability. It should also be noted that many rural communities rely on energy services purchased by their rural municipal or cooperatively owned utility through agreements with the Power Marketing Administrations.

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[4] https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epm0_pte_nus_dpg&f=m
[5] https://www.nytimes.com/2022/03/10/business/russia-ukraine-war-gas-prices.html
[6] https://www.atlanticcouncil.org/blogs/energysource/cyberattacks-on-our-energy-infrastructure/
[7] https://www.texastribune.org/2021/03/29/texas-power-outage-ERCOT/

This cost-based clean energy, largely generated at Federally owned hydropower facilities, is an important contributor to rural energy security and stability, both economically and operationally.

As part of the Biden-Harris Administration's work to prevent electric system failures from weather events like last winter's power outages throughout Texas and to protect the grid from ransomware and other cyber-threats, USDA created a new division to help increase the security of the nation's electric grid. The Grid Security Division, in Rural Development's Electric Program, aims to increase federal collaboration to protect the nation's electric grid from service disruptions and outside attacks and is keenly focused on electric grid security. It informs rural-serving electric utilities of USDA's ability to finance utility investments in cybersecurity, grid security, fire prevention, reliability and resilience. It also works closely with industry groups and other stakeholders on critical infrastructure security policy.

Rural Development also finances investments that will help utilities manage loads to ensure system reliability and security through the Electric Loan Program. In Fiscal Year 2021, Rural Development financed $5.1 billion for ninety-two projects under the Electric Loan Program, including $102 million in Smart Grid projects. These projects range from building solar farms in rural areas to financing cooperatives as they lay fiber backbones and power lines. These projects will help improve quality of life and support good-paying jobs, transition to a clean energy economy, and keep the United States poised to lead the global economy. Rural Development will continue to work to make rural electric infrastructure stronger, more sustainable, and more resilient than before.

New Markets & Climate Resilience

Clean energy can also be a catalyst for economic development in rural America. Cleaner power options—like wind, solar, and biofuels—provide new market opportunities for producers and small businesses, reducing energy costs for consumers and supporting skill-based jobs in rural communities.

When rural communities lean into clean energy transition, the resulting economic prosperity is evident. Rural Development recently financed a $95 million guaranteed loan to Prairie State Solar in Perry County, Illinois. The loan supported a 600-acre solar photovoltaic farm to deliver and sell its electrical output to a service area that meets rural eligibility requirements. The output of the project is sold to Wabash Valley Power Association, an electric generation and transmission cooperative that provides wholesale power to twenty-three distribution cooperatives in Illinois, Indiana, and Missouri. The project created roughly 200 local construction jobs, powers approximately 15,000 rural households, and provides permanent employment for between three to five people. At the time, the project doubled the statewide solar capacity in Illinois and contributes millions in tax revenue for the state without requiring additional public

infrastructure or services.[8] This kind of opportunity stimulates real economic development—good paying jobs, lower costs for consumers, and revenue for other public services—all while harnessing rural innovation to tackle the climate crisis.

The Biden-Harris Administration has been clear about its commitment to addressing climate change, and the Rural Utilities Service Electric Program has made great strides in reducing the carbon intensity of its loan portfolio. This has been accomplished by eliminating new coal-fired generation projects and increasing investment in renewable energy projects providing clean, sustainable electricity to rural communities, particularly solar energy. From 2010 to 2020, the carbon intensity of this portfolio measured in pounds of carbon dioxide emitted per megawatt hour of electricity generation decreased by twenty-five percent. This represents a reduction of seventy-six million tons of carbon dioxide.

Biofuels and BioPreferred® also present an opportunity for blenders, manufacturers, and businesses to participate in climate-smart initiatives while creating new markets for producers and rural businesses. Under the CARES Act, Rural Development will make available up to $700 million in payments for eligible biofuel producers for unexpected market losses resulting from COVID-19. This funding will restore renewable fuel markets affected by the pandemic, maintain a significant biofuels marketplace, and help agricultural producers maintain and create more viable markets for products that supply biofuel production, such as corn or soybeans. Rural Development will also soon make $100 million available to increase the sale and use of higher blends of bioethanol and biodiesel by expanding the infrastructure for renewable fuels derived from U.S. agricultural products. Grants will be available for refueling and distribution facilities covering the cost of installing, retrofitting, or otherwise upgrading infrastructure required at a location to ensure the environmentally safe availability of fuel containing bioethanol blends of E-15 and greater or fuel containing biodiesel blends of B-20 and greater. Biofuels—which can be a carbon neutral product—absorb carbon dioxide as inputs grow, offsetting emissions and creating a cleaner fuel option. In 2020 biofuels supported 62,000 direct jobs across the country, $35 billion in economic output and $19 billion in household income.[9] Ethanol also displaced more than 500 million barrels of cruel oil in 2021, contributing to efforts to protect America's energy independence.[10] Advanced biofuels have the potential to decarbonize the hard to electrify modes of transportation such as aviation, marine and rail. USDA is a lead agency, along with Department of Energy and Department of Transportation, supporting the government wide Grand Challenge to produce 3 billion gallons/year of Sustainable Aviation Fuel reducing aviation GHG emissions by 20% by 2030.Additionally, Rural Development provides significant support for biobased products industry, which accounts for a value-added contribution to the U.S.

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[8] https://www.kfvs12.com/story/37669426/perry-county-solar-project-to-bring-jobs-boost-solar-capacity-in-il

[9] https://ethanolrfa.org/ethanol-101/why-is-ethanol-important

[10] https://ethanolrfa.org/ethanol-101/why-is-ethanol-important

Economy of $470 billion and employs more than four million people.[11] Biobased products are derived from plants and other renewable agricultural, marine, and forestry materials and provide an alternative to conventional petroleum-derived products while providing new markets to producers. The 2002 Farm Bill created the BioPreferred® Program, which identifies and seeks new markets for biobased products, spurs economic development, creates new jobs, increases the use of renewable agricultural resources through a voluntary labeling program and a federal procurement preference. In 2018 Farm Bill Congress deepened its commitment to biobased markets by requiring the Department of Agriculture and the Department of Commerce to jointly develop NAICS codes for renewable chemical and biobased product manufacturers. Rural Development is coordinating with federal partners to implement this provision. Biobased products have the potential to reduce greenhouse gas emissions by an estimated twelve million metric tons of carbon dioxide equivalents per year.[12]

The biofuels and biobased products sectors are success stories—demonstrating that efforts to combat climate change go hand in hand with strong economic development, particularly in rural communities.

Rural Energy Efficiency

Rural Development also plays a role in increasing energy efficiency in rural communities—initiatives that reduce the carbon footprint of construction, processing, and production, as well as slashing costs for consumers. These costs are particularly important for low-income communities, where households often pay as much as thirty percent of their income on energy costs.[13] In many cases, energy efficiency is not just a climate issue but an equity issue.

The Rural Energy Savings Program, a relending program, provides zero interest loans to utilities to relend to residential, commercial, and industrial consumers for energy efficiency investments. The Rural Energy for America Program—which also serves biofuels and clean energy production—gives producers and businesses a hands-on way to participate in climate-smart practices while also cutting energy costs. Among other uses, REAP can provide grant and loan funding directly to producers and businesses to make energy efficiency improvements. In some cases, applicants have used funding to purchase new, more energy-efficient equipment on the farm—like the first new grain dryer purchased since 1980—which reduces overall energy usage and cuts input costs for producers. In other cases, applicants used funding to replace doors and windows in a facility to better insulate their business and reduce heating bills. Since January 2021, Rural Development invested $687 million in REAP projects like these, all which play a significant role in tackling the climate crisis. In that same period, Rural Development projects

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[11] https://www.usda.gov/media/press-releases/2021/07/29/usda-releases-economic-impact-analysis-us-biobased-products

[12] https://www.usda.gov/media/press-releases/2021/07/29/usda-releases-economic-impact-analysis-us-biobased-products

[13] https://www.aspeninstitute.org/blog-posts/rural-clean-energy-innovation/

resulted in greenhouse gas emission savings of 1.4 million metric tons of carbon dioxide annually for the life of these projects.

These programs demonstrate strong successes in the fight against climate change while also helping cut energy costs and increase efficiency for producers and rural businesses. Yet, there is still work to do. Often, these programs are cumbersome and difficult to apply for, particularly for underserved communities who are grappling with structural barriers like lack of access to capital, technical assistance, or capacity to navigate Rural Development's resources.

To more equitably serve customers and deliver programs, USDA recently announced and held the first meeting of an Equity Commission, which is charged with evaluating USDA programs and services and recommending how we can reduce hurdles to accessing them. Rural Development is also looking for creative ways to provide capital and technical assistance to communities that historically have not had resources like REAP. We know that investments in our boots-on the-ground staff help communities navigate not only Rural Development resources but those across the federal family. Rural Development can provide resources to both help tackle the climate crisis and cut costs for families, businesses, and consumers—these benefits should be felt by all and underscore the importance of delivering programs equitably.

Conclusion

These programs demonstrate remarkable success in the fight against climate change while also helping cut energy costs and increase efficiency for producers and rural businesses. Rural residents know what works for them, and they know what tools they need to adapt to changing circumstances and build a more resilient future.

Rural Development is poised to meet and expand our commitment to energy and the bioeconomy in rural America. I look forward to working with this Committee to support this mission.